

RT6N430C

TRANSISTOR WITH RESISTOR
FOR MUTING APPLICATION
SILICON NPN EPITAXIAL TYPE

DESCRIPTION

RT6N430C is a silicon NPN epitaxial type transistor. This product is most suitable for muting circuit, switching circuit because of low on resistance, small collector to emitter saturation voltage.

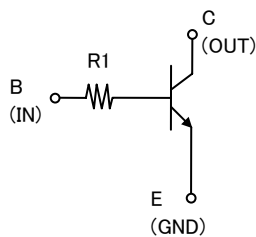
FEATURE

- Small package for easy mounting.
- High reverse hFE
- Small collector to emitter saturation voltage
 $V_{CE(sat)}=40\text{mV(TYP.)}(@I_C=50\text{mA}/I_B=2.5\text{mA})$
- Low on Resistance
 $R_{on}=0.55\ \Omega \text{ (TYP.)}(@V_I=5\text{V})$

APPLICATION

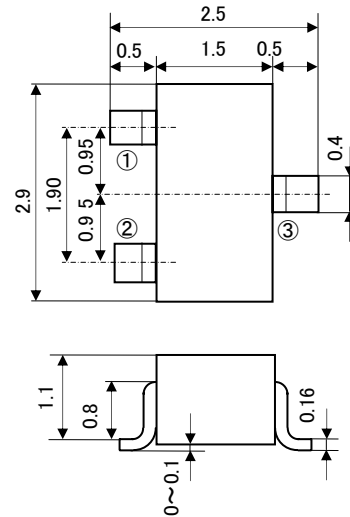
muting circuit, switching circuit

EQUIVALENT CIRCUIT



OUTLINE DRAWING

Unit : mm



JEITA: SC-59

TERMINAL CONNECTOR

- ①: BASE
- ②: EMITTER
- ③: COLLECTOR

MAXIMUM RATINGS (Ta=25°C)

Symbol	Parameter	Ratings	Unit
V_{CBO}	Collector to Base voltage	40	V
V_{EBO}	Emitter to Base voltage	40	V
V_{CEO}	Collector to Emitter voltage	20	V
I_C	Collector current	600	mA
P_C	Peak Collector current	200	mW
T_j	Collector dissipation (Total Ta=25°C)	+150	°C
T_{stg}	Junction temperature	-55~+150	°C

<SMALL-SIGNAL TRANSISTOR>

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ELECTRICAL CHARACTERISTICS (T_a=25°C)

Parameter	Symbol	Test conditions	Limits			Unit
			Min	Typ	Max	
C to B break down voltage	V(BR)CBO	I _C =50 μA, I _E =0mA	40	-	-	V
E to B break down voltage	V(BR)EBO	I _C =50 μA, I _C =0mA	40			V
C to E break down voltage	V(BR)CEO	I _C =1mA, R _{BE} =∞	20			V
Collector cut off current	ICBO	V _{CB} =40V, I _E =0mA	-	-	0.5	μA
Emitter cut off current	IEBO	V _{EB} =40V, I _C =0mA	-	-	0.5	μA
DC forward current gain	hFE	V _{CE} =5V, I _C =50mA	820	-	2500	-
C to E saturation voltage	VCE(sat)	I _C =50mA, I _B =2.5mA	-	40	150	mV
Input resistor	R1	-	3.29	4.7	6.11	kΩ
Gain band width product	fT	V _{CE} =10V, I _E =-50mA, f=100MHz	-	120	-	MHz
Output "ON" resistance	Ron	V _i =5V, R _L =1kΩ, f=1MHz	-	0.55	-	Ω



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